

II. Amendment

Applicants have canceled claims 9 and 13 and amended claims 11, 12, 14 and 16.

A complete listing of the claims of the application is set forth below, with the status of each claim identified in accordance with 37 C.F.R. § 1.121.

Listing of Claims

Claim 1. (original) A method of depolymerizing polysaccharides selected from the group consisting of galactomannans, modified galactomannans and xanthan to a pre-selected molecular weight comprising the step of subjecting the polysaccharides to radiation consisting essentially of electron beams.

Claim 2. (original) The method of claim 1, wherein the galactomannans are depolymerized to a molecular weight of less than about 700,000 Daltons.

Claim 3. (original) The method of claim 1, wherein the galactomannans are depolymerized to a molecular weight of less than about 500,000 Daltons.

Claim 4. (original) The method of claim 1, wherein the galactomannans are depolymerized to a molecular weight of less than about 300,000 Daltons.

Claim 5. (original) The method of claim 3, wherein the galactomannans are depolymerized to a molecular weight of between about 100,000 Daltons and about 250,000 Daltons.

Claim 6. (original) The method of claim 1, wherein the galactomannans are present in a material selected from the group consisting of guar gum, guar splits, hydroxypropyl guar, cationic guar, locust bean guar, tara guar, carboxymethyl guar, carboxymethyl hydroxypropyl guar, cationic hydroxypropyl guar, hydroxyl alkyl guar and carboxyalkyl guar.

Claim 7. (original) A galactomannan produced according to the method of claim 1.

Claim 8. (original) The galactomannan of claim 5, wherein the galactomannan is selected from the group consisting of guar gum, guar splits, hydroxypropyl guar, cationic guar, locust bean guar, tara gum, carboxymethyl guar, carboxymethylhydroxypropyl guar, cationic hydroxypropyl guar, hydroxyalkyl guar and carboxyalkyl guar.

Claim 9. (canceled)

Claim 10. (currently amended) ~~The~~ An oil well fracturing agent ~~of claim~~
~~9, wherein the~~ said agent comprising

- a) an additive; and
- b) a galactomannan which is crosslinkable with said additive
and has a molecular weight of between about 100,000
Daltons and about 250,000 Daltons and also [as] has

a polydispersity of below about 3.0 and is at least 90% hydrated within three (3) minutes.

Claim 11. (currently amended) The fracturing agent of claim 9 10,
wherein the crosslinking additive is selected from the group consisting of
borate, titanate or zirconate organometallic crosslinking agents.

Claim 12. (currently amended) The fracturing agent of claim 9 10,
wherein the agent further comprises a proppant.

Claim 13. (canceled)

Claim 14. (currently amended) ~~The~~ An oil well fracturing agent ~~of claim~~
~~13, said agent comprising:~~

- a) a proppant; and
- b) a galactomannan which has a molecular weight of between
about 100,000 Daltons and about 250,000 Daltons,

wherein the galactomannan also has a polydispersity of below about 3.0
and is at least 90% hydrated within three (3) minutes.

Claim 15. (original) An oil well fracturing agent, said agent comprising:

- a) a proppant;
- b) a crosslinking additive; and
- c) a galactomannan which is crosslinkable with said additive and has a molecular weight of between about 100,000 Daltons and 250,000 Daltons and a polydispersity of below about 3.0.

Claim 16. (currently amended) An oil well fracturing agent, said agent comprising:

- a) a proppant;
- b) a crosslinking additive; and
- c) a galactomannan which has a molecular weight of between about 100,000 Daltons and about 250,000 Daltons and in which also has a polydispersity of below about 3.0 and at least 90% changes to a hydrated product within three (3) minutes.